

REMARKS

Claims 1-10, 17, 19-29, and 31-46 were presented for examination and were pending in this application. In an Official Action dated June 10, 2003, claims 1-46 were rejected.

Applicants kindly remind Examiner that claims 11-16, 18 and 30 are no longer pending in this application because they were previously cancelled by preliminary amendment filed on January 5, 2001. Therefore, any claim rejections directed to those claims are not addressed herein.

Applicants herein amend claims 1, 7, 19, 21, 32-36, 38, 39, and 41. Applicants herein cancel, without prejudice, claim 31. Applicants herein add claims 47-49. Applicants now request reconsideration and allowance of claims 1-10, 17, 19-29, and 32-46 and allowance of new claims 47-49.

Applicants thank Examiner for examination of the claims pending in this application and addresses Examiner's comments below.

Response to Drawings Objection

The drawings were objected to as failing to comply with 37 CFR 1.84(p)(5) for failing to include reference sign **415** mentioned in the description. Applicants respectfully request further explanation of this objection because applicants believe that Figure 4a includes reference sign **415** (Output Signal). In an effort to advance prosecution of this application, Applicants submit a proposed drawing correction that intends to address what Applicants believe the Examiner's objection.

Response to Claim Rejections

Claims 1-33 were rejected under 35 U.S.C. § 102(e) as being anticipated by Rostoker (U.S. Pat. No. 6,006,105). Claims 1, 7, 19, 21, and 32 are amended herein to obviate this rejection. Representative claim 1, as amended, now recites

A method for receiving an output signal from one of a first wireless communication device operating in a first frequency range or a second wireless communication device operating in a second frequency range, the method comprising:

- receiving the output signal at a processor;
- identifying whether the first wireless communication device or the second wireless communication device sent the output signal based on information included in the output signal; and
- implementing a protocol that corresponds to the identified wireless communication device, wherein in response to identifying the first wireless communication device, a first protocol is implemented, and in response to identifying the second wireless communication device, a second protocol is implemented.

Similarly, independent claim 19, as amended, now recites,

A system for receiving an output signal from one of a first wireless communication device operating in a first frequency range or a second wireless communication device operating in a second frequency range, the system comprising:

- a processor for receiving the output signal, wherein the processor is adapted to:
 - identify whether the first wireless communication device or the second wireless communication device sent the output signal based on information included in the output signal; and
- implement a protocol that corresponds to the identified wireless communication device, wherein in response to identifying the first wireless communication device, a first protocol is implemented, and in response to identifying the second wireless communication device, a second protocol is implemented.

In addition, claim 33, as now amended, recites,

A computer readable medium comprising a plurality of instructions, which when executed by a processor, cause the processor to perform the steps of:

- identifying whether a first wireless communication device operating in a first frequency range or a second wireless communication device operating in a second frequency range sent an output signal received by the processor,

wherein the identifying is based on information included in data packets comprising the output signal; and

implementing a protocol that corresponds to the identified wireless communication device, wherein in response to identifying the first wireless communication device, a first protocol is implemented, and in response to identifying the second wireless communication device, a second protocol is implemented.

As amended, claims 1, 19, and 33 beneficially recite identifying whether the first wireless communication device or the second wireless communication device sent the output signal. This feature advantageously allows determining how the information in the output signal is to be handled. For example, by identifying the wireless communication device to be a wireless mouse, a bridge according to one embodiment of the invention implement a corresponding protocol to decode the data in the output signal according to the communications protocol and to format the data as cursor position data.

In contrast, Rostoker simply shows “a wireless communication device, ... , configured to self-adapt to various operating frequencies and communication protocols which may be present in the cellular communication environment.” (Rostoker, Abstract). Rostoker fails to anticipate claims 1, 19, and 33 because it fails to show all the elements in each claim. For example, Rostoker fails to show the “identifying whether the first wireless communication device or the second wireless communication device sent the output signal” because the wireless communication device disclosed in Rostoker does not need to identify the source device of the communications signals; The cellular device of Rostoker is “self-adapting to various frequency bands and communications protocols which may be encountered in use ... in the service areas where a user of the cell phone wishes to travel.” (Rostoker, col. 8, lines 11-26) Further, the device in Rostoker can receive communications signals from many different sources, mobile and stationary,

sources of communication signals for video, audio and data are not limited to other mobile and stationary subscriber units 12 in the system 10. Since the base stations 14 are linked to telephone networks, data can be provided over wired networks by sources such as private facsimile machines and corporate computers containing private or commercial databases. Audio can be provided over wired networks by analog telephones, personal computers and even radios. Video and graphics files can be provided by direct broadcast satellites and Very Small Aperture Terminals (VSAT), and by computers over fiber optic and ISDN networks. Internet and world wide web access via various ones of these connection possibilities make a great variety of communication signal sources and types available to the user of the device 122.

(Rostoker, col. 13, lines 13-27). Therefore, for at least this reason, independent claims 1, 19, and 33, as amended, and dependent claims 2-10, 17, 20-20, and 32 are patentably distinct over Rostoker et. al. Thus, Applicants kindly request allowance of claims 1-10, 17, 19-29, 32, and 33.

Claims 8 and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rostoker in view of Cheng (U.S. Pat. No. 6,393,008). Claim 8 is dependent on claim 1 and claim 27 is dependent on claim 19. Therefore, claims 8 and 27 also include the “identifying whether the first wireless communication device or the second wireless communication device sent the output signal” element of claims 1 and 19.

As discussed above, Rostoker fails to teach all the elements of claims 1 and 19, including the “identifying whether the first wireless communication device or the second wireless communication device sent the output signal” element. Further, as stated in the Office Action, Rostoker “does not expressly disclose decoding a set of MAC information associated with the output signal.” Hence, Rostoker alone does not anticipate claims 8 and 27 which include the elements of claims 1 and 19.

Rostoker is further combined with Cheng as the basis for this rejection. Cheng, teaches “a method and system for transmitting packet data over a cellular telecommunications network.”

(Cheng, Abstract). The method and system of Cheng include “a novel medium access control (MAC) logical ... implemented between a service option layer and multiplex sublayer.” (Cheng, col. 2, lines 43-45). However, Cheng also fails to disclose the “identifying whether the first wireless communication device or the second wireless communication device sent the output signal” element. Therefore, neither Rostoker alone, Cheng alone, or their combination disclose all the elements of claims 8 or 27. For at least this reason, claims 8 and 27 are patentably distinct from the cited references either alone or in combination. Thus, Applicants kindly request prompt allowance of claims 8 and 27.

Claims 33-46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rostoker in view of Han (U.S. Pat. No. 5,605,505). With respect to claim 33, as discussed above, Rostoker fails to show all of its limitations. Further, Examiner stated that Rostoker fails to show the element of “having a first port and a second port for receiving communication information from the devices in the different frequency ranges.” For that reason, examiner cited Han as disclosing “a system that includes two receiving units that can receive signals from two different input devices (e.g. game controllers) that work on two different frequencies. Citing Han, col. 2, lines 20-49. However, claim 33 does not include such element. Therefore, for at least this reason, claim 33 is patentable distinct from the cited references, either alone or in combination. Applicants respectfully request prompt allowance of claim 33.

Now turning to claims 34-46, representative claim 34, as amended, now recites

A receiver apparatus for receiving wireless communications from a number of wireless communication devices, the apparatus comprising:

- a first I/O port for receiving communication information from a first wireless device operating in a first frequency range;
- a second I/O port for receiving communication information from a second wireless device operating in a second frequency range; and

a processor for effecting upon received communication information a protocol that corresponds to one of the first or second wireless communication devices in response to determining which wireless communication device sent the communication information.

Like claims 1, 19, and 33, claim 34, as amended, similarly beneficially recites “determining which wireless communication device sent the communication information.” As discussed above, this feature advantageously allows determining how the information in the wireless communication is to be handled.

As discussed above, Rostoker does not determine which wireless communication device sent the information because the device in Rostoker can receive information from non wireless devices (Rostoker, col. 13, lines 13-27). The Rostoker device simply cycles through a set of available frequencies to determine the communication standards of the network or environment of the present service area (see col. 12, lines 14-31). In addition, as stated in the Office Action, Rostoker fails to show “having a first port and a second port for receiving communication information from the devices in the different frequency ranges.” Therefore, for at least these reasons, Rostoker fails to show all the elements of claim 34.

Rostoker is further combined with Han as the basis for the claim 34 rejection. Applicants respectfully traverse this combination because Han teaches away from the multi-frequency multi-protocol system of Rostoker. In addition, Examiner has failed to show any motivation to combine these references. Han describes “a two-player game playing apparatus using wireless remote controllers.” (Han, Abstract). The device in Han has two main embodiments:

One embodiment of the two-player game playing apparatus using wireless remote controllers comprises two remote controllers. ... Another embodiment of the present invention, ... comprises a first remote controller for outputting a game key signal input by a first player through a wire cable and a second remote controller connected to the first remote controller with the wire cable so that the game key signal input through the wire cable from

the first remote controller and the game key signal input by a second player are transmitted without a wire.

Han, col. 2, lines 25-57. However, the Han fails to show “a processor for effecting upon received communication information a protocol that corresponds to one of the first or second wireless communication devices in response to determining which wireless communication device sent the communication information.” The communication information of Han is limited to a set of “game key signal” (Han, col. 2, line 22) received from either two remote controllers at two different input ports A and B of decoder 15 (see col. 5, lines 33-40) or from two remote controllers, only one of which is wireless, each remote control having a distinct key matrices (col. 7, line 66 to col. 8, line 6). Hence, the game playing apparatus of Han only deals with one type of communication information, game key signals, and does not need to effect upon the received communication a protocol that corresponds to either one or the other wireless communication device; both devices, even though they may transmit in different frequency bands, simply transmit game key signals that can be decoded in the same manner. Therefore, for at least these reasons, neither Rostoker alone, Han alone, or their combination disclose all the elements of claim 34.

In addition, claim 36 was rejected under 35 U.S.C. § 103(a) for being unpatentable over Rostoker, in view of Han and further in view of Junod (U.S. Pat. No. 5,854,621). Claim 36 is dependent on claim 34 and hence, the arguments above also apply to claim 36. Further, Junod discloses a wireless mouse but does not disclose the elements that Han and Rostoker failed to disclose. Hence, claim 36 is patentable over the cited references, alone or in combination. Therefore, for at least these reasons, claim 34 and all of its dependent claims 35-46 are patentably distinct over the cited references, alone or in combination. Consequently, Applicants kindly request prompt allowance of claims 34-46.

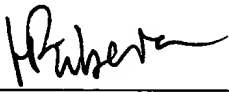
Conclusion

In sum, Applicants respectfully submit that claims 1-10, 17, 19-29, and 32-49, as presented herein, are patentably distinguishable over the cited references, both alone and in combination. Therefore, Applicants request reconsideration and allowance of these claims.

In addition, Applicants respectfully invite Examiner to contact Applicants' representative at the number provided below if Examiner believes it will help expedite furtherance of this application.

RESPECTFULLY SUBMITTED,
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